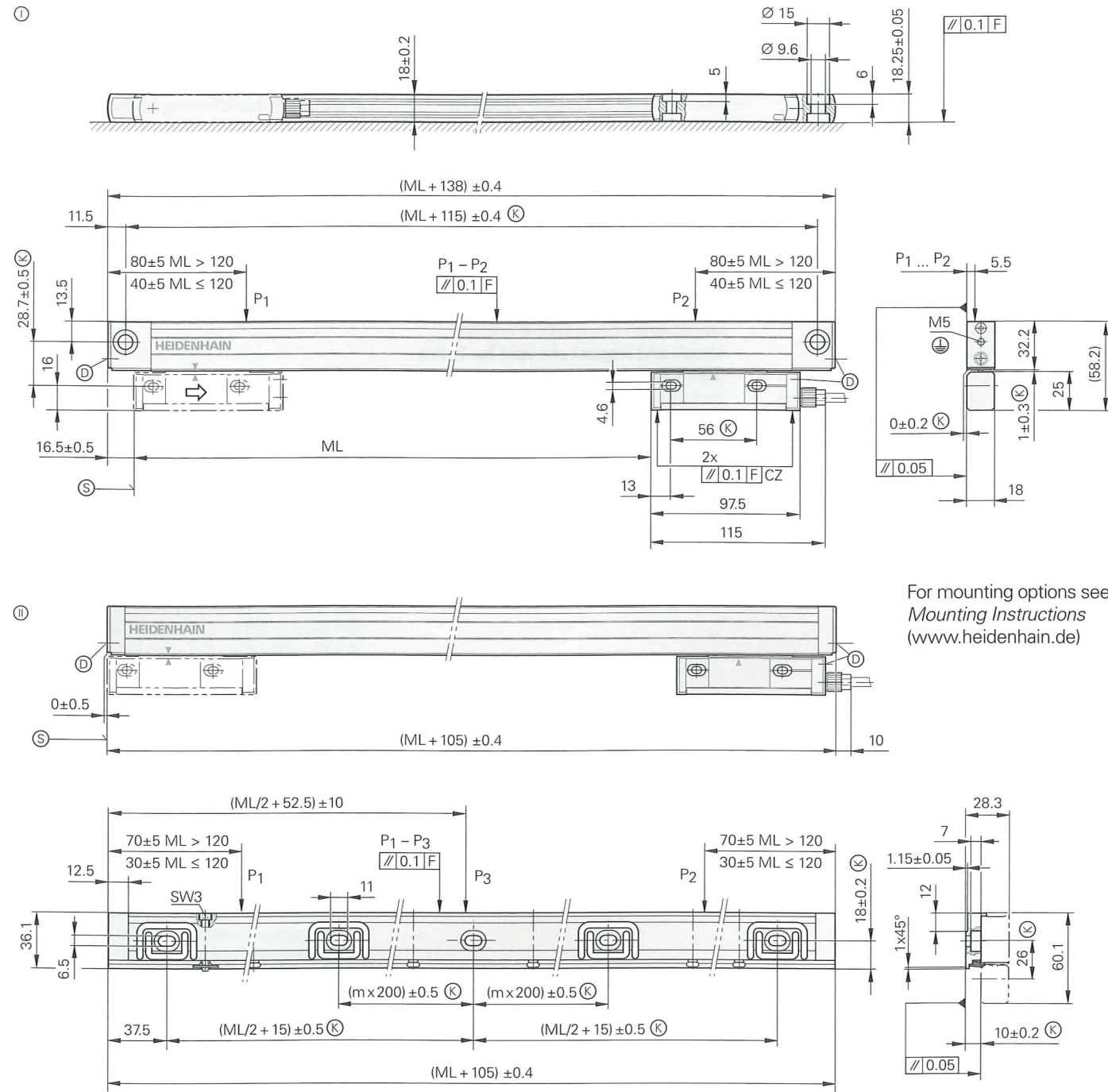


LC 400 Series

- Absolute linear encoders for measuring steps to 0.1 µm (resolution to 0.005 µm)
- For limited installation space
- Up to two additional scanning units are possible



Dimensions in mm



Tolerancing ISO 8015
ISO 2768 - m H
< 6 mm: ±0.2 mm

- ⊖ = Without mounting spar (with M8 screws)
- ⊕ = Mounting with mounting spar (LC 483 with short end pieces shown; LC with normal end pieces can also be mounted)
- F = Machine guideway
- P = Gauging points for alignment
- ML ≤ 820 P₁ - P₂
- ML > 820 P₁ - P₃
- ⊗ = Required mating dimensions
- ⊙ = Compressed air inlet
- ⊙ = Beginning of measuring length (ML) (at 20 mm)
- ⇒ = Direction of scanning unit motion for output signals in accordance with interface description

Mounting spar

ML	m
70 ... 520	0
570 ... 920	1
1020 ... 1340	2
1440 ... 1740	3
1840 ... 2040	4



LC 483 without mounting spar

LC 483 with mounting spar

Specifications	LC 483	LC 493F	LC 493M
Measuring standard	DIADUR glass scale with absolute track and incremental track		
Expansion coefficient	$\alpha_{\text{therm}} \approx 8 \times 10^{-6} \text{ K}^{-1}$ (mounting type ⊖); with mounting spar: $\alpha_{\text{therm}} \approx 9 \times 10^{-6} \text{ K}^{-1}$ (mounting type ⊕)		
Accuracy grade*	± 3 µm; ± 5 µm		
Measuring length ML* in mm	Mounting spar* or clamping elements* optional 70 120 170 220 270 320 370 420 470 520 570 620 670 720 770 820 870 920 1020 1140 1240 Mounting spar* or clamping elements* necessary 1340 1440 1540 1640 1740 1840 2040		
Absolute position values*	EnDat 2.2 Ordering designation EnDat 02	Fanuc 02 serial interface	Mitsubishi high speed serial interface, Mit 02-4 or Mitsu 01
Resolution	0.005 µm Accuracy ± 3 µm Accuracy ± 5 µm	0.01 µm 0.05 µm	
Calculation time t_{cal}	EnDat 2.1 command set EnDat 2.2 command set	< 1 ms ≤ 5 µs	- -
Incremental signals	$\sim 1 \text{ V}_{\text{PP}}^{1)}$	-	-
Grating period/signal period	20 µm	-	-
Cutoff frequency	-3dB	≥ 150 kHz	-
Power supply without load	3.6 to 5.25 V/< 300 mA		
Electrical connection	Separate adapter cable (1 m/3 m/6 m/9 m) connectable to mounting block		
Cable length²⁾	≤ 150 m; depending on the interface and subsequent electronics	≤ 30 m	≤ 20 m
Traversing speed	≤ 180 m/min		
Required moving force	≤ 5 N		
Vibration 55 to 2000 Hz	Without mounting spar: ≤ 100 m/s ² (IEC 60068-2-6) With mounting spar and cable outlet right/left: ≤ 200 m/s ² /100 m/s ² (IEC 60068-2-6)		
Shock Acceleration 11 ms	≤ 300 m/s ² (IEC 60068-2-27) ≤ 100 m/s ² in measuring direction		
Operating temperature	0 °C to 50 °C		
Protection IEC 60529	IP 53 when mounted according to the mounting instructions IP 64 if compressed air is connected via DA 300		
Weight	Encoder: 0.2 kg + 0.5 kg/m measuring length, mounting spar: 0.9 kg/m		

* Please indicate when ordering
1) Depending on the adapter cable

2) With HEIDENHAIN cable